

ABSTRACT

A selector circuit configured to select among a DC power source and a plurality of batteries for an electronic device. The selector circuit is responsive to an output signal from an associated power management unit. The selector circuit is further configured to permit parallel operation of two or more of the batteries. The selector circuit may further act to independently verify power conditions and override instructions from the PMU in certain instances to enhance power supply safety and battery life such as by preventing inter battery current flow from a higher potential battery to a lower potential battery coupled in parallel. A power supply block including the selector circuit and an electronic device including the power supply block is also provided. The selector circuit may be integrated with a charging circuit on one integrated circuit.